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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/753,357	01/09/2004	Koji Yamaguchi	118292	6391
25944	7590	09/28/2005		
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			EXAMINER POTTER, ROY KARL	
			ART UNIT 2822	PAPER NUMBER
DATE MAILED: 09/28/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of Group I, i.e. claims 1 – 14, drawn to a wiring substrate in the reply filed on 7/8/05 is acknowledged. The traversal is on the ground(s) that the inventions are sufficiently related that a thorough search for the subject matter of any one would encompass a search for the remaining invention. This is not found persuasive because, while the inventions are related, and the search for one may include areas that would be included for a search of another, the search areas would not be identical.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Sumikawa et al.

Sumikawa et al., U.S. Patent No. 6587353, discloses a device, which as shown in Figure 1, has a wiring layer 2&6 formed on a substrate 1 with terminal electrodes 8 coupled to the wiring layer. As explained in column 8, at line 43, the terminal electrodes 8 are disposed based on a stress distribution that works on the substrate.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 5-8, 9-11, 13, 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sumikawa et al. in view of Japanese Patent publication 2004 – 281470A.

Sumikawa et al. does not teach terminal electrodes disposed to avoid diagonal lines on the substrate.

Japanese Publication 2004-281470A discloses, in Figure 1, electrodes 3b on the diagonal lines of a substrate that are not connected electrically to any wiring layers. Non-diagonal electrodes 3a are used for wiring. The substrate acts as an interposer for connecting a electronic device with conductive filled through holes 2, shown in Figure 2 providing electrical connection form one surface to the opposite surface.

It would have been obvious to one of ordinary skill in the art at the time the invention was made ton not place wired electrodes along the diagonal lines in the Sumikawa et al. as the Japanese publication teachers that these locations should not be used for wired electrodes.

Allowable Subject Matter

Claims 3 – 4 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

In regard to claims 3 – 4, the prior art does not teach or suggest stress insulation sections.

Claim 12 is allowed.

In regard to claim 12, the prior art does not teach or suggest grooves or slits provided along the diagonal lines of the substrate.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Culmer et al., U.S. Patent No. 4599634, discloses a stress insensitive integrated circuit. As shown in Figure 1C and described in column 2, beginning on line 13, the silicon substrate 10 is divided into four triangle shaped quadrants by diagonal lines 24 and 26 running between opposed corners of the substrate. These diagonal lines are the axes of stress symmetry. Figure 3 shows interconnection metallurgy 28.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roy K. Potter whose telephone number is 571 272 1842. The examiner can normally be reached on M-F.

Art Unit: 2822

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Roy K Potter
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Art Unit 2822